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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,398	09/12/2003	H. Robert Horvitz	01997/548003	7921

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CLARK & ELBING LLP
101 FEDERAL STREET
BOSTON, MA 02110

EXAMINER

GUIDRY, GUY L

ART UNIT	PAPER NUMBER
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1636

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/661,398	Applicant(s) HORVITZ ET AL.	
	Examiner Guy Guidry, Ph.D.	Art Unit 1636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-21

are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-4, drawn to a method for identify a compound that treat neoplasia comprising *mep-1*, *lin(n3626)*, *lin(n4256)* and *lin-65*, classified in class 435, subclass 455.
- II. Claims 5-7, drawn to a method of identifying a nucleic acid target of class B synMuv biological activity comprising a microarray and detecting expression of a nucleic acid in *C. elegans*, classified in class 435, subclass 6.
- III. Claim 8, drawn to a method to identify a nucleic acid that binds synMuv class C polypeptide comprising contacting a nucleic acid-protein complex with an antibody against MEP-1, LIN(n3628), LIN(n4256) OR LIN-65 and isolating said nucleic acid, classified in class 435, subclass 7.1.
- IV. Claims 10 and 11, drawn to a method for identify a compound that treat neoplasia comprising a cell having a mutation in KIAA1735 and a second mutation in a synMuv nucleic acid and a candidate compound and detecting a decrease in proliferation, classified in class 435, subclass 455.
- V. Claims 12-13, drawn to a method for identifying a nucleic acid that binds KIAA1735 comprising an anti-KIAA1735 antibody and microarray, classified in class 435, subclass 7.1.

- VI. Claims 14 and 15, drawn to a vector comprising a nucleic acid having at least 95% identity to SEQ ID NO: 30 and host cell, classified in class 435, subclass 320.1.
- VII. Claim 16, drawn to method for identify a compound that treat neoplasia comprising *trr-1*, *hat-1*, *epc-1* and *ssl-1* and detecting an altered phenotype in a nematode, classified in class 435, subclass 455.
- VIII. Claims 17-19, drawn to method for identifying a nucleic acid whose expression is modulated by a synMuv class C polypeptide comprising a microarray and *trr-1*, *hat-1*, *epc-1* and *ssl-1* nucleic acids, classified in class 435, subclass 6.
- IX. Claims 20-21, drawn to a method of identifying a target of a synMuv class C polypeptide comprising nucleic acid-protein complex and anti- TRR-1, HAT-1, EPC-1 and SSL-1 antibody, classified in class 435, subclass 7.1.

The inventions are distinct, each from the other because of the following reasons:

Inventions of Groups ~~and~~ VI and Group IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the product of Group VI, a vector comprising SEQ ID NO: 30 and host cell, could be used in a process other than comprising a mutation in a cell with another synMuv nucleic acid, applying a candidate compound and detecting a decrease in proliferation. The vector

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and host cell could be used as one of two cells in a differential display assay where the vector is overexpressed and gene products up or down regulated as a result of overexpression are isolated.

Inventions of Groups VI and I-III, V, VII-IX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the vector and host cell product of Group VI is not disclosed as being used in any of the processes of Groups I-III, V, VII-IX, and the modes of operation of Groups I-III, V, VII-IX processes do not require the product of Group VI.

Inventions of Groups I-V, VII-IX are directed to related processes. The related inventions are distinct if the inventions as claimed do not overlap in scope, i.e., are mutually exclusive; the inventions as claimed are not obvious variants; and the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, the methods of Groups I-V, VII-IX comprise distinct processes, with different reagents and modes of operation as follows. The processes of Groups I, IV and VII comprise contacting a cell comprising a mutation and detecting an alteration in the cell relative to a control cell. In Group I the mutation comprises one of *mep-1*, *lin(n3626)*, *lin(n4256)* and *lin-65* nucleic acids, whereas in group IV the mutation comprises a nucleic acid encoding KIAA1735 and in Group VII the mutation comprises one of *trr-1*, *hat-1*, *epc-1* and *ssl-1* nucleic acids. In contrast, the processes of Groups II

and VII comprise a method of identifying a nucleic acid target of class B synMuv encompassing providing a microarray comprising fragments of nematode nucleic acids and contacting the array with labeled nucleic acids. Group II comprises labeled nucleic acids comprising one of *mep-1*, *lin(n3626)*, *lin(n4256)* and *lin-65* nucleic acids, whereas Group VIII comprises one of *trr-1*, *hat-1*, *epc-1* and *ssl-1* nucleic acids. Lastly, the inventions of Groups III, V and IX each comprise a method for identifying a nucleic acid that binds a polypeptide comprising contacting a nucleic acid-polypeptide complex with an antibody, purifying the complex and isolating the nucleic acid. The antibody employed in the Group III inventions is an antibody against one of MEP-1, LIN(n3628), LIN(n4256) and LIN-65 whereas the antibody of Group V is against KIAA1735 and the antibody of Group IX is against one of TRR-1, HAT-1, EPC-1 and SSL-1.

Because these inventions are independent or distinct for the reasons given above and the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guy Guidry, Ph.D. whose telephone number is 571-272-7928. The examiner can normally be reached on Monday through Friday 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Remy Yucel, Ph.D. can be reached on 571-272-0781. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) (<http://pair-direct.uspto.gov>) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.


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For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

Guy Guidry, Ph.D.

Examiner

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DANIEL M. SULLIVAN
PATENT EXAMINER